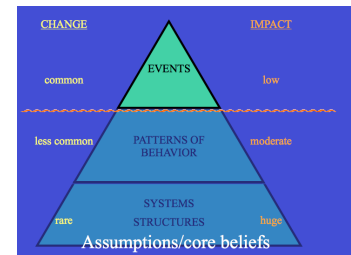


Finding Leverage: Systems Thinking 101 for Student and Staff Voice

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THE BASICS

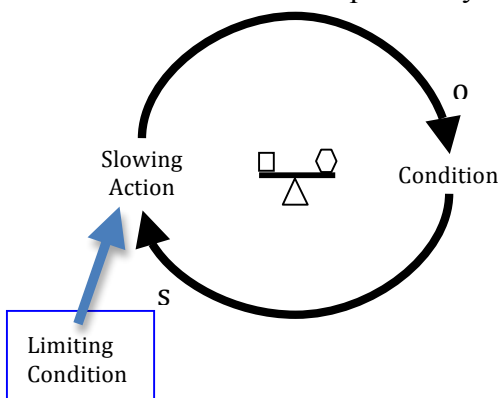
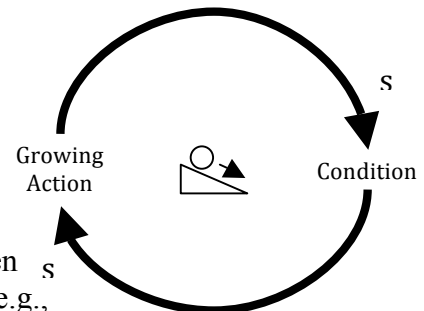
- I. **Systems produce Patterns of Behavior that in turn produce events.** Thus, every system is perfectly set up to produce exactly the results you are getting. If there is an event you don't like that must mean there is a pattern. And if such a pattern exists there must be systems pushing for this outcome. It's not that there are *broken* systems that produce the patterns that produce the event. There are perfectly functioning systems that produce the result.



- II. Though we tend to speak and think in linear terms, **reality is actually circular** (what goes around comes around). Since things are either changing (getting better and better or worse and worse) or not changing (things remain the same despite our efforts), there are only two kinds of feedback loops and one thing that can happen to both of them. The basic building blocks of systems thinking are:

- **Reinforcing Feedback Loops**
- **Balancing Feedback Loops**
- **Delays**

- III. Feedback is any *reciprocal* flow of influence. A Reinforcing Loop occurs when all the relationships between the variables are the *same* (s). When the Growing action increases the Condition increases. Or when the "Growing" Action decreases the Condition decreases (e.g., Less food leads to less weight leads to continuing my diet.) In a complex system a reinforcing loop can also be created by the presence of 2 or 4 or 6 or... *opposite* (o) relationships. Can you see it? They keep canceling each other out so that the cup keeps going up.



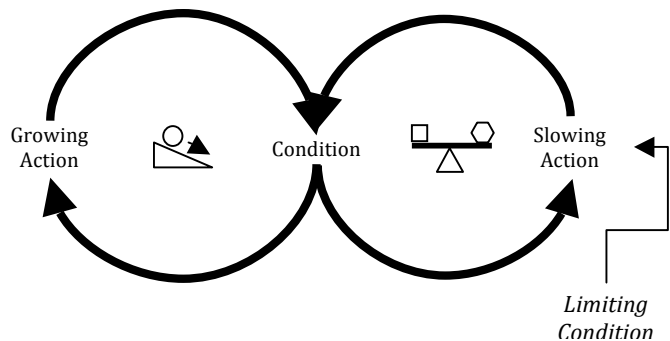
A Balancing Loop occurs whenever one (or three or five or seven....) opposite relationships exists in a system. As the Condition increases the Slowing Action increases. As the slowing action increases the Condition decreases (when my weight goes down my metabolic rate goes down; when my metabolic rate goes down my weight goes up). Things appear to be moving but nothing really changes. The result is always the same.

Becoming a systems thinker means seeing these loops and the many complex ways they combine.

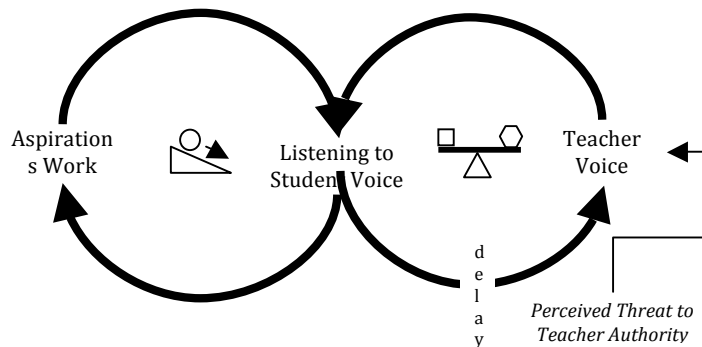
LIMIT TO GROWTH: WHY WE STOP DOING GOOD THINGS

The most common combination is known as a Limit to Growth structure. "Growing" action...Diet. Condition...Weight. Slowing Action...a slowing metabolism. Limiting Condition...a million years of evolution that designed a specific response to weight loss in order to protect us from famine.

Limits to Growth: Generic



Limit to Aspirations Work: Student Voice



With Aspirations work we increase student voice. The problem is that creates a *perceived* threat to teachers' authority. The desire for teachers to be listened to more-than-students-are-listened-to means the more we listen to students the less teachers will feel listened to *in relationship to* students. The less teachers feel listened to in relationship to students the less they will want us to listen to students and subsequently the less we will do Aspirations work. Pick anything that you tried to set up a reinforcing loop (i.e., change) for three years ago that you are no longer doing. The cause of its demise was a balancing loop somewhere that no one accounted for. Guaranteed. In social systems that balancing loop/friction is almost always involves someone or a group feeling threatened by a perceived loss of power.

The issue is rarely implementation (setting up the reinforcing loop). The issue is sustainability. Schools have implemented/initiated dozens of things in the last 20 years. They have sustained precious few. We must not confuse conformity (an implementation/reinforcing loop issue) with commitment (a sustainability/ balancing loop issue). With conformity I can get any reinforcing loop spinning pretty good. Without attention to the balancing loop, I will never sustain it. If we are going to create and implement meaningful, sustainable changes to the 8 Conditions (not programmatic, short-term, three-years-then-give-us-the-next-program kind of change), we must become systems thinkers in action.

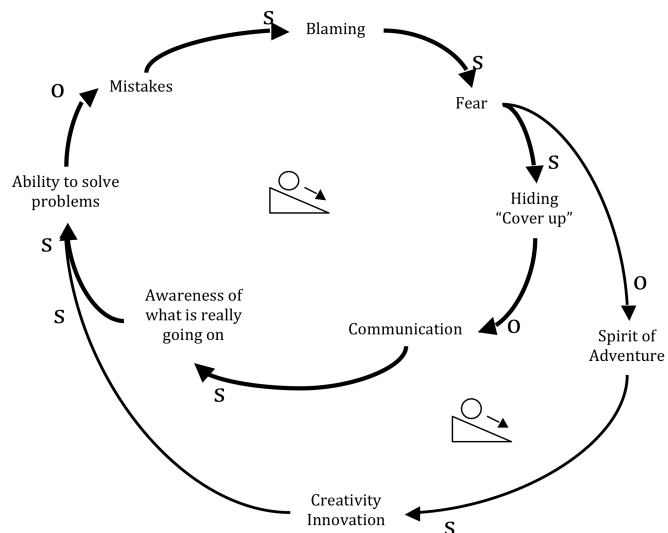
Here is the trick in a Limit to Growth structure: The leverage is in the balancing loop! The way to *sustain* weight loss is to rev your metabolism...not eat less and less and less. The way to sustain an increase to student voice is to listen to adults more! To help them not feel threatened. To *invite*, not expect. To have a sub-team working on staff issues. Can you see it?

REINFORCING LOOPS THAT KEEP US IN THE DARK

We studied two communication systems: One was what happens when two reinforcing loops combine in response to people making mistakes.

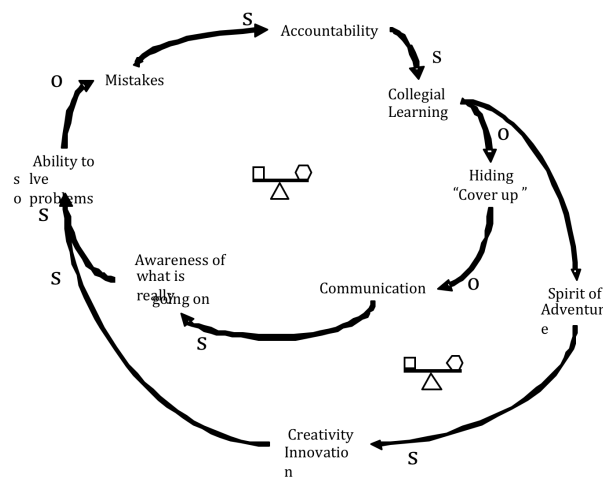
One way to check if this is an accurate picture of the system in your school is to walk around the circle and ask:

1. Do I blame others? Do I feel others blaming me (directly or indirectly)?
2. Do I feel fear? Do I believe others are afraid?
3. Do I hide or cover up? Do I think others are hiding and covering up?
4. Am I reluctant to communicate with others? Do I feel others are not communicating with me?
5. Do I feel like I don't have an adequate awareness of what is really going on? Do I feel like others don't have an awareness of what is really going on?
6. Have I noticed that my ability to solve problems has decreased? Do I think other people have an inability to solve problems effectively?
7. Do I make mistakes? Do I think others make mistakes?



To check that it is a *reinforcing* loop ask: Is there *more* blaming, fear, hiding, etc. now than there was 6 months ago? Than a year ago? Than two years ago? Etc. Only those within a system can accurately assess whether a causal loop diagram (CLD) correctly represents what the reality is.

The high-leverage, systemic intervention is to break the link between mistakes (which are inevitable) and blaming (which is not inevitable).



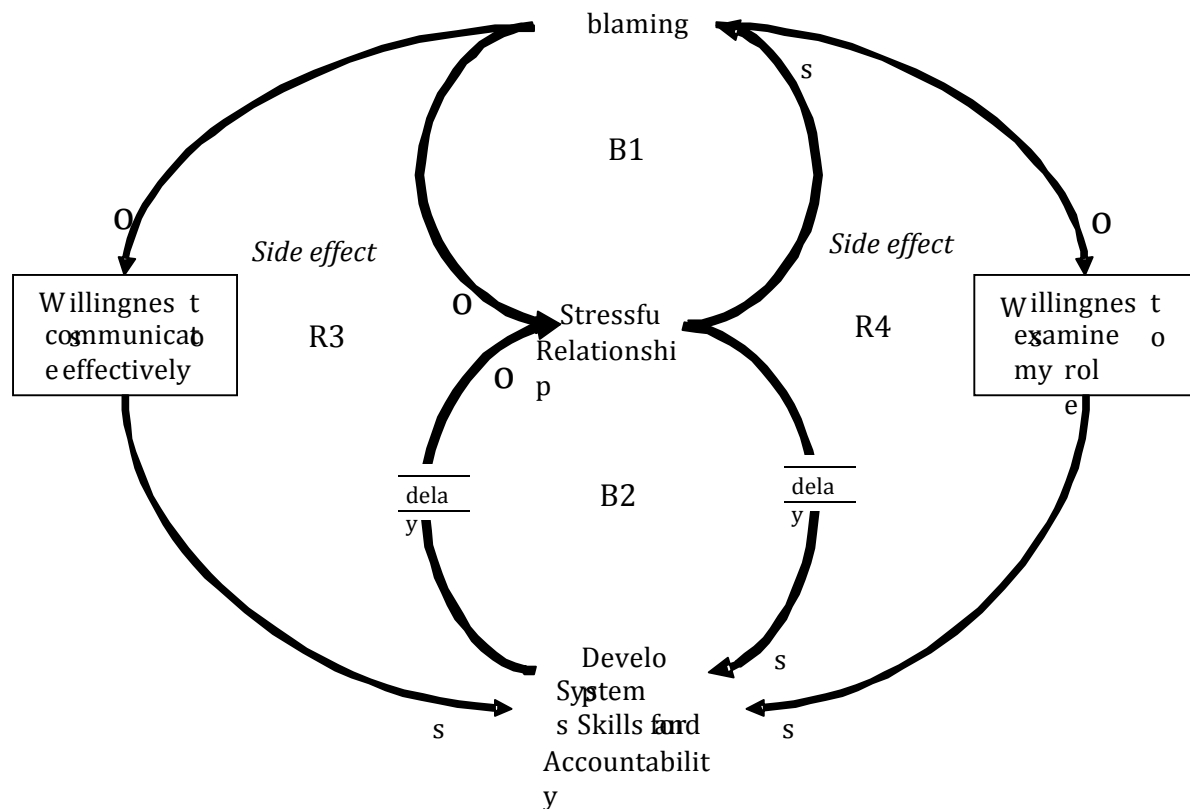
One way to do this is to replace the link "Blaming"→Fear" with a system of "Accountability→Learning". This reverses the CAUSE and EFFECT relationship of two links downstream setting up two balancing feedback loops (an odd number of o's) instead of reinforcing loops. Thus when mistakes are made the accountability system (not the blaming system) kicks in. While this will have the long term effect of reducing mistakes, it will not reduce to zero the use of the accountability system because the GOAL of this particular system

is to always hold one another accountable—when things go well and, since mistakes have multiple sources, when mistakes are made.

SHIFTING THE BURDEN: WHY WE NEED TWO POTS OF COFFEE

A second communication system involving blaming is what happens when "blaming" becomes a quick fix for dealing with a stressful relationship. When the stress goes up, blaming goes up (s), as a result of blaming someone else, my stress goes down (o). The quick fix keeps me from looking for a more fundamental solution, which in this case would be developing a system of accountability. So when stress goes down as a result of my blaming you (B1), my need to develop systems and skills for accountability goes down as well (s) which then increases my stress (o) in the long term (B2). If you keep walking around the figure 8 of a Shifting the Burden Structure, you can see how if you opt for the quick fix, the two balancing cycles combine to have an overall reinforcing effect. "Blaming" will keep increasing and the use of what systems there are for holding people accountable will keep decreasing over time. As a result, I need more and more of the quick fix and seek less and less for a real solution.

In addition, a Shifting the Burden Structure typically produces unintended consequences or side effects that also exert a reinforcing effect on the system. In this case, they are a decreasing willingness to examine my role (R3) and a decreasing willingness to communicate effectively (R4).

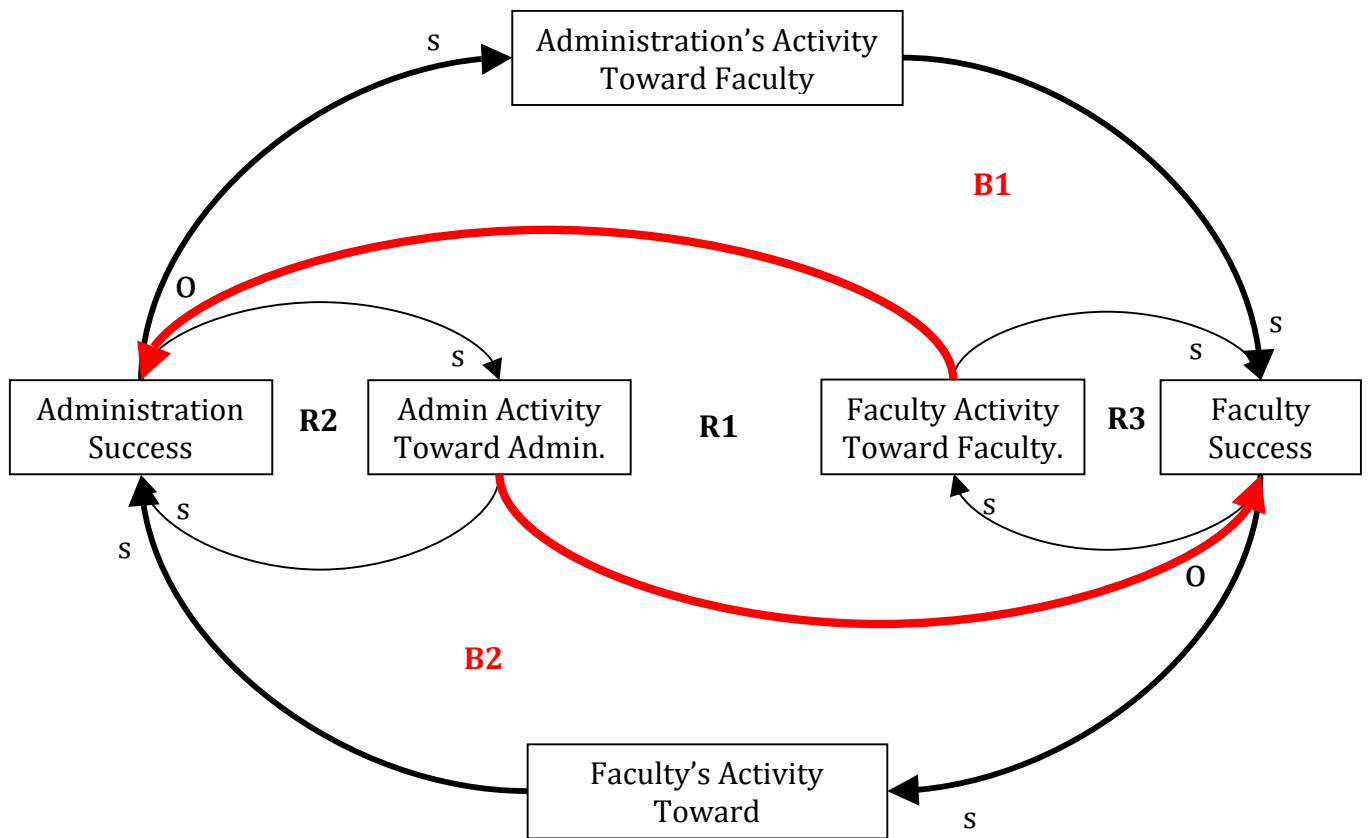


The solution is to eliminate “Blaming” as a way of solving stress and develop a system and the skills for holding one another accountable. If you opt for that as a solution, when you walk around the figure 8, the system runs in reverse becoming a virtuous rather than a vicious circle.

The challenge in opting for accountability as a solution are the delays involved. It takes time to develop an effective accountability system that all stake-holders can agree to and it takes time to see results of the system on the stressful relationship. During that delay, we need to resist the urge to “quick fix” the stress by blaming. In the short term, stress may go up.

Shifting the Burden applies to many other "addictions" we see in schools. One common one is trying to quick fix flagging test scores with teach to the test solutions. The fundamental solution is academic motivation and mastery, but those take times. The "two pots of coffee" if we let the quick fix play out are the cheating scandals we see popping up around the country. It's not bad people; it's good people trapped in bad systems.

ACCIDENTAL ADVERSARIES: WHEN COLLEAGUES BECOME ENEMIES



In order to understand “Accidental Adversaries” (which can lead to blaming) start with the large outer circle (R1). If the circle is positively reinforcing: Administration’s Activity Toward Faculty (e.g., support with parent issues) leads to increasing Faculty Success (better relationships with parents) which leads to increasing Faculty Activity Toward Administration (seeking advice about parents before a problem arises) which leads to increasing Administration Success (less complaints from parents) which leads to increasing Administration Activity Toward Faculty. (This can be seen clearly on a sales team where the sales manager’s success is tied to her sales forces success.) R1 can, however, be negatively reinforcing: When Administration’s Activity Toward Faculty decreases (admin does not conduct classroom evaluations) Faculty Success decreases (less effective teaching) and Faculty Activity Toward Administration (less requests to be evaluated) decreases and then Admin. Success decreases (overall academic success of school slips) so Admin. Activity Toward Faculty decreases.

R1 can run in either direction.

Notice that each group is also doing things to promote its own success (R2 & R3). Problems arise when some of the activity the faculty engages in to increase its own success accidentally (unintentionally) decrease the administration's success (B1). Similarly, some of the activity the administration engages in to increase its own success may accidentally decrease faculty success (B2). These two balancing loops then force the larger, outer reinforcing loop in a negative direction (it's actually just a more complicated version of Limit to Growth...can you see it?). The two groups thus become accidental adversaries and R1 becomes a vicious, rather than a virtuous, circle.

A successful, systemic intervention would break the accidental links (red arrows). In a school caught up in this structure, administration and faculty must make commitments to be intentional partners rather than accidental competitors. As a member of the faculty, I must make a commitment never to engage in an activity that will lead to my success but reduce the administration's success (win-lose). As a member of the administration, I must make a commitment never to engage in an activity that will lead to my success but reduce the faculty's success (win-lose). This requires a high degree of Win-Win intentionality around important decisions that affect one another. Clear and effective communication systems are a part of this solution.

"Accidental Adversaries" is common in schools not just between faculty and administration, but between teachers and students, teachers and parents, teachers and teachers, students and students, schools and other schools in the district, etc., etc.

Remember systems have a profound influence on behavior. If we want different results, we must redesign the system. Whether or not this particular analysis is accurate for your school and requires an intervention, this is the kind of work we are headed for in Year 2.

Do your best to practice seeing the world in this way. See the way things connect. See the way when the student volume in a room increases your volume increases (s) and when your volume increases their volume decreases (o) so your volume decreases (s) so their volume increases (o) so your volume increases (s) so their volume decreases (o)... Try your hand at drawing a few causal loop diagrams. Why do you have less and less time to do the things you want to do? What is the reciprocal cause of that? Why despite your best efforts is something you are trying to change not changing? Where is the balancing loop? Where is the leverage?

Remember leverage is all about connections. The number of variables that can be influenced, by changing one, typically small, thing.

Once we can see the world in these terms, we can then design systemic interventions (like the one built into MY Voice: listening to staff more to listen to students more). Then we can really solve problems at the structural level and not simply keep pushing harder on the change (the reinforcing loop).